

PID: _____ Name: (Last) _____ (First) _____ Date: _____

Answer	Definition	General Principle
	<p>Draw and list the 3 ossicles in order from the tympanic membrane to the oval window.</p> <p>What is its purpose?</p>	<p>Auditory system anatomy and transduction pathway.</p>
	<p>What are the components of the outer ear? What is the purpose of those components?</p>	
	<p>Where anatomically does the inner ear start? What is included?</p>	
	<p>Define and describe the components of the middle ear. Where does it start? Where does it end? What does it include?</p>	
	<p>What are the 5 stages in auditory processing from sound to spiral neuron stimulation?</p> <p>Be specific.</p>	
	<p>Air particles are ___ when they are closest together.</p>	<p>Sound waves are an example of a longitudinal wave. The wavelength, period and frequency of sound can be determined by the movement and displacement of air particles.</p>
	<p>Air particles are ___ when they are far apart and spread out.</p>	
	<p>X-number of cycles per second would be measured by _____.</p>	<p>General knowledge</p>
	<p>Range of sound frequencies humans can perceive.</p>	<p>Sensory system limitations and specializations</p>
	<p>At 0 dB (decibel) human perception is barely audible. What scale is used for dB?</p>	<p>The human sound range is so wide, one needs a way to represent the</p>

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		magnitude differences.
	What are the consequences of sound exposure that is 120dB over a sustained period of time?	Clinical importance
	What is the reflex associated with protecting the inner ear from loud noises? What are the two muscles which mediate that reflex? How does that protect the inner ear?	Anatomy and physiology of the auditory system.
	What nerve is formed by the axons of the spiral ganglion cells?	
	The oval window is at the base of which cochlear chamber?	
	Which chamber is below the basilar membrane?	
	The cochlea ___ from base to apex.	
	Describe the frequency tuning properties at the base and apex of the basilar membrane	
	The basilar membrane is ____ & ____ at the apex.	
	Who did early research on the basilar membrane spatially tuned?	
	Draw the organ of Corti with the auditory receptors (outer and inner) and their connections to the spiral ganglion neurites. Include the tip-links and tectorial membrane.	Anatomy and physiology of the auditory system.
	Where is the tectorial membrane located and what is its purpose?	
	What is the purpose of the stria vascularis?	
	What is the ionic composition of the	

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	<p>endolymph that surrounds the inner and out hair cells?</p> <p>What ion depolarizes the hair cells in the auditory signal transduction pathway?</p> <p>What neurotransmitter is released by the hair cells to signal to the spiral ganglion cells.</p>	
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